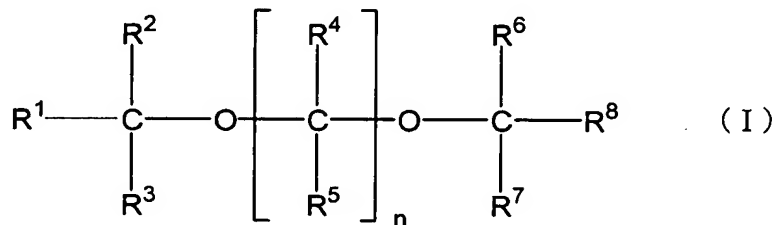
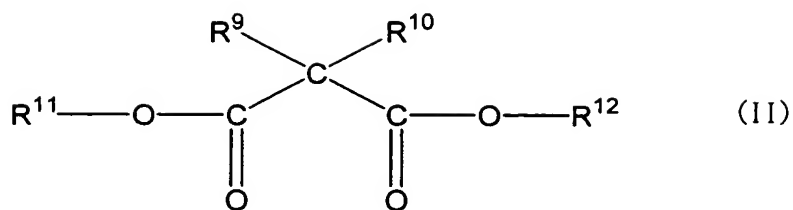


CLAIMS

1. A solid catalyst component for olefin polymerization, which is obtained by reacting the following
 5 compounds (a), (b) and (d), or the following compounds (a), (b), (c) and (d),
 (a) a halogen-containing titanium compound,
 (b) an alkoxyated magnesium compound obtained by reacting metal magnesium, an alcohol and a halogen and/or
 10 halogen-containing compound containing at least 0.0001 gram atom, per mole of said metal magnesium, of a halogen atom,
 (c) a halogen-containing silicon compound,
 (d) electron-donating compound(s) represented by the following general formula (I) and/or general formula
 15 (II),



- wherein n is an integer of 2 to 10, each of R¹ to R⁸ is independently a substituent having at least one element selected from carbon, hydrogen, oxygen, halogen, nitrogen,
 20 sulfur, phosphorus, boron or silicon, any substituents of R¹ to R⁸ may together form a ring other than a benzene ring, and a main chain may contain an atom other than carbon,



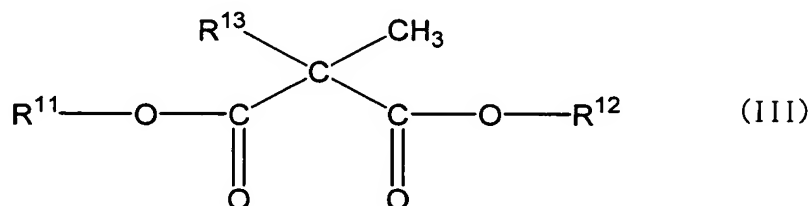
wherein each of R⁹ to R¹² is independently a linear, branched or cyclic alkyl group, or an arylalkyl group, having 1 to 20 carbon atoms, provided that the total sum of 5 carbon atoms of R⁹ and R¹⁰ is 3 to 40.

2. The solid catalyst component for olefin polymerization as recited in claim 1, wherein said halogen is iodine.
- 10 3. The solid catalyst component for olefin polymerization as recited in claim 1, wherein said halogen-containing compound is magnesium chloride.
- 15 4. The solid catalyst component for olefin polymerization as recited in claim 1, wherein said metal magnesium, the alcohol and the halogen and/or halogen-containing compound are reacted at a temperature of 30 to 90°C.
- 20 5. The solid catalyst component for olefin polymerization as recited in claim 4, wherein said metal magnesium, the alcohol and the halogen and/or halogen-containing compound are reacted at a temperature of 30 to 25 60°C.
6. The solid catalyst component for olefin

polymerization as recited in claim 1, wherein said halogen-containing silicon compound (c) is silicon tetrachloride.

7. The solid catalyst component for olefin
5 polymerization as recited in claim 1, wherein the compound of said general formula (I) is a 1,3-diether compound.

8. The solid catalyst component for olefin
polymerization as recited in claim 1, wherein the compound
10 of said general formula (II) is a compound of the following general formula (III),



15 wherein R^{11} and R^{12} are as defined in said general formula (II), and R^{13} is a linear, branched or cyclic alkyl group having 2 to 20 carbon atoms.

9. The solid catalyst component for olefin
20 polymerization as recited in claim 1, wherein said compound (a) is contacted after said compound (b) and said compound (d) are contacted to each other when said compounds (a), (b) and (c) are reacted.

25 10. The solid catalyst component for olefin polymerization as recited in claim 1, wherein said compound (d) is contacted after said compound (b) and said compound

(c) are contacted to each other and then said compound (a) is contacted when said compounds (a), (b), (c) and (d) are reacted.

- 5 11. A catalyst for olefin polymerization, comprising the following components [A] and [B], or the following components [A], [B] and [C],

[A] the solid catalyst component for olefin polymerization recited in claim 1,

- 10 [B] an organic aluminum compound, and
[C] an electron-donating compound.

12. A method for producing an olefin polymer, which comprises polymerizing an olefin in the presence of the
15 catalyst for olefin polymerization recited in claim 11.